WEST Search History

DATE: Thursday, April 17, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L6	(starch capsule) and (colin or colon or nolonic or intestine)	58	L6
L5	targit$	6	L5
L4	L2 and (coating or coat or coated or eudragit$ or enteric)	100	L4
L3	L2 and (coating or coat or coated or uedragit$)	97	L3
L2	starch capsule	126	L2
L1	(starch same capsule)	38458	L1

END OF SEARCH HISTORY

1: Mutat Res 1993 Nov;290(1):127-38 Related Articles, Links

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Gastrointestinal monitoring of DNA-damaging agents with magnetic microcapsules.

O'Neill I, Ridgway O, Ellul A, Bingham S.

International Agency for Research on Cancer, Lyon, France.

Semi-permeable, magnetically recoverable, reactive microcapsules of several types were developed for gastrointestinal (GI) monitoring of several kinds of DNA-damaging agents in relation to (i) systematic dietary variations designed to discriminate the GI effects of food components known to modulate colorectal cancer risk, and (ii) then thereby to achieve the identification of a range of endogenous agents and their dietary sources. These microcapsules contained as targets either amino functions (for alkylating agents), 14CH3 functions (to detect cross-linking agents and reactive oxygen species precursors), or a copper porphyrin (for carcinogens having planar molecular structure). Other microcapsules had a cleavable target based on guanine, which is shown to trap endogenous agents and a [14C]BaP metabolites in male F344 rats consuming a putative high-risk diet (high fat, high meat, low fibre non-starch polysaccharide (NSP)), but not significantly when consuming the contrasting low-risk diet. Detailed investigations of the action of fibre NSP and fat showed that increased intake from low to high levels of the British diet range enhanced or decreased several carcinogenesis-relevant end-points more than two-fold. Detection of these disproportionately large effects on microcapsule trapping, hepatic DNA adducts from endogenous agents, colorectal mucosal cell mitoses/micronuclei, endogenous cross-linking agents, and gut microfloral enzyme activities (a) are consistent with epidemiological data on the importance of these components and (b) provide the basis for establishing with microcapsules some potential dietary preventive measures in volunteers.

Publication Types:
- Review
- Review, Tutorial

PMID: 7694092 [PubMed - indexed for MEDLINE]